

Work Order ID 68678

Tuesday, April 19, 2011 3:57:02 PM



Page 1

Item ID: D3391-021

Accept



Setup Start



Revision ID:

Stop



Item Name: Fwd Tube Assembly

Start Date: 4/19/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: *mk*

Date: 11-04-19

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3391

Rev H

100



Skidtubes

0.00

Skidtubes

Memo

0.00

Skidtubes

Cut extrusion to 46.52 +0.010 -0.020

DP

11-5-5

110



BENDING MACHINE - SKIDTUBES

0.00

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend as per Dwg D3391 Using Bend Prog 3391021

DP

11-5-5

120



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

DP 11-05-05

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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NOTE: Date & initial all entries

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Start Date: 4/19/2011 Start Qty: 1.00

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Cust Item ID:

Customer:




Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--|--|----------------------|---------|-----------|--------------|---------------|---------------|------------------|----------------|
| 130  HAAS 1 | HAAS CNC VERTICAL MACHINING #1 | 0.00 | | | | 1 | | | |
| HAAS CNC vertical machine #1 | Memo 1-Machine as per Folio FA590 Rev. _____ & Dwg D3391 Rev. _____ Identify as D3391-1 2-Deburr | 0.00 | | 22 11.5.6 | | | | | |
| 140  QC | QC2- Inspect parts off machine FAI/FAIB | 0.00 | | 22 11.5.6 | | 1 | | | |
| Quality Control | Memo | 0.00 | | | | | | | |
| 150  Mill Conv | CONVENTIONAL MILLING MACHINE | 0.00 | | | | | | | |
| Conventional Milling Machine | Memo Drill X1 Aft cap as per Dwg D3391 .1875" dia | 0.00 | | 11-05-07 | | 1 | | | Ø |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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Start Date: 4/19/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

X Jm 11-05-07

1 1

Quality Control

170

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

SL 11/05/10

Quality Control

11-05-30

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod.Mgr | Approval QC Inspector |
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Reference:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

6-Deburr & Scribe Batch number Inside aft end.

7-Transfer drill D3391-021 with D3391-023

190



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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Customer:

Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

IX M-11/05/24

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 BR 11-5-26

220

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-instal spacers as per dwg D3391

A/R Magnabond #398 batch: M116677

exp. date: 08/2011

cure time 12hrs as per QSI015

2- grind crossbolt flush

3-back drill crossbolt if necessary

DL 11/05/24

1 V BE 11/05/25

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

QC5- Inspect part completeness to step on W/O

0.00

8 M05/26



QC

Memo

0.00



Quality Control

235

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

1 0 11/05/26

Hand Finishing

AND REALODINE AS PER PAR09-043

240

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

1 BL 11-5-26

Powder Coating

START TIME: 1:30
OVEN TEMPERATURE: 370°
FINISH TIME: 2:00

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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NOTE: Date & initial all entries

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

250

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 0 M 4/05/22

255

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

✓ **** install D3591-1 spacer as per DSI9364 and wearplate and gasket as per
DWG ****

1 0 M 4/05/22

257

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

5 4/05/30

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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NOTE: Date & initial all entries

Work Order ID 68678

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Item ID: D3391-021

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Setup Start



Revision ID:

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Item Name: Fwd Tube Assembly

Start Date: 4/19/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/13/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260

Identify as per dwg & Stock Location: w/o

0.00

0412-742-043 / B69242



Packaging

Memo

0.00

1 0 YH 4/19/11

Packaging

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

4/15/11

4/11-05-30

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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NOTE: Date & initial all entries

Picklist Print

Tuesday, April 19, 2011 3:56:59 PM

Page 1

Work Order ID: 68678



Parent Item: D3391-021



Parent Item Name: Fwd Tube Assembly

Start Date: 4/19/2011

Required Date: 5/13/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A 05.09.13 New issue KJ/JLM
 IPP B 06.02.10 Dwg rev.D ecn 773 EC
 IPP C 06.05.02 Added inspections EC
 IPP D 07.03.13 rev F dwg EC
 IPP E 07.11.07 revG dwg ecn1053P EC verified by: DD
 IPP Rev:f ECN 1056 07-11-12 DD verified by: EC
 IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC
 IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
 IPP Rev J 09.02.02 added hardware EC verified by: DD

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

| | | | | | | | | | | | | | |
|-------------------|--|--------------|----|--|--|-----|------|---------|---|---|--|--|--|
| D6013-047 | | Manufactured | No | | | 100 | Each | 31.0000 | 1 | 1 | | | |
| | | | | | | | | | | | | | |
| Skidtube Material | | | | | | | | | | | | | |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
|----------|---------|----------|

| | | |
|-------|----|--|
| LG | 31 | |
| 26547 | 31 | |

| | | | | | | | | | | | | | |
|-------------|--|--------------|----|--|--|-----|------|----------|---|---|--|--|--|
| D3670-4-200 | | Manufactured | No | | | 220 | Each | 100.0000 | 4 | 4 | | | |
| | | | | | | | | | | | | | |
| SPACER | | | | | | | | | | | | | |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
|----------|---------|----------|

| | | |
|-------|-----|--|
| LG | 100 | |
| 67777 | 39 | |
| 68107 | 61 | |

| | | | | | | | | | | | | | |
|------------------|--|--------------|----|--|--|-----|------|---------|---|---|--|--|--|
| D3401-041 | | Manufactured | No | | | 255 | Each | 18.0000 | 1 | 1 | | | |
| | | | | | | | | | | | | | |
| Tow Cap Assembly | | | | | | | | | | | | | |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
|----------|---------|----------|

| | | |
|-------|----|--|
| FP007 | 18 | |
| 46029 | 6 | |
| 61505 | 12 | |

Handwritten notes: 11-5-5, J.E. 4/25/23

Handwritten notes: 4, 11/05/23

Handwritten note: xl

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

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Tuesday, April 19, 2011 3:56:59 PM

Work Order ID: 68678

Parent Item: D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 4/19/2011

Required Date: 5/13/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-13

Manufactured No

255

Each

38.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP017

38

66136

16

66549

6

66805

16



4/10/22

D3566-13

Manufactured No

255

Each

41.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP014

41

66550

21

68341

20



4/10/22

AN960C10L

NAS1149C0332
R

Purchased

No

255

Each

0.0000

10

10



washer

AN3C4A

Purchased

No

255

Each

2,358.000

10

10



BOLT

Location

Loc Qty

Loc Code

ST350

2358

116924

358

117094

1000

117313

1000



4/10/22



4/10/22

4/10/22

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

Picklist Print

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Tuesday, April 19, 2011 3:57:00 PM

Work Order ID: 68678



Parent Item: D3391-021



Parent Item Name: Fwd Tube Assembly

Start Date: 4/19/2011

Required Date: 5/13/2011

Start Qty: 1.00

Required Qty: 1.00

D3672-1 Manufactured No

255

Each

1,387.000

4

4



Phenolic Washer



4 11/05/22

Location

Loc Qty

Loc Code

FP-A

37

52505

37

ST074

1350

64177

850

66821

500

x4

AELS-1032-130

ALS4-1032-130

Purchased

No

255

Each

0.0000

2

2



M117331



(x2) 4 11/05/22

INSERT

AELS-1032-225

ALS4-1032-225

Purchased

No

255

Each

0.0000

10

10



M110768



(x10) 4 11/05/22

INSERT

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

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| DART AEROSPACE LTD | | Work Order: 68678 |
| Description: Float Skidtube (412) | | Part Number: D3391-1 |
| Inspection Dwg: D3391 | Rev: H | Page 1 of 1 |

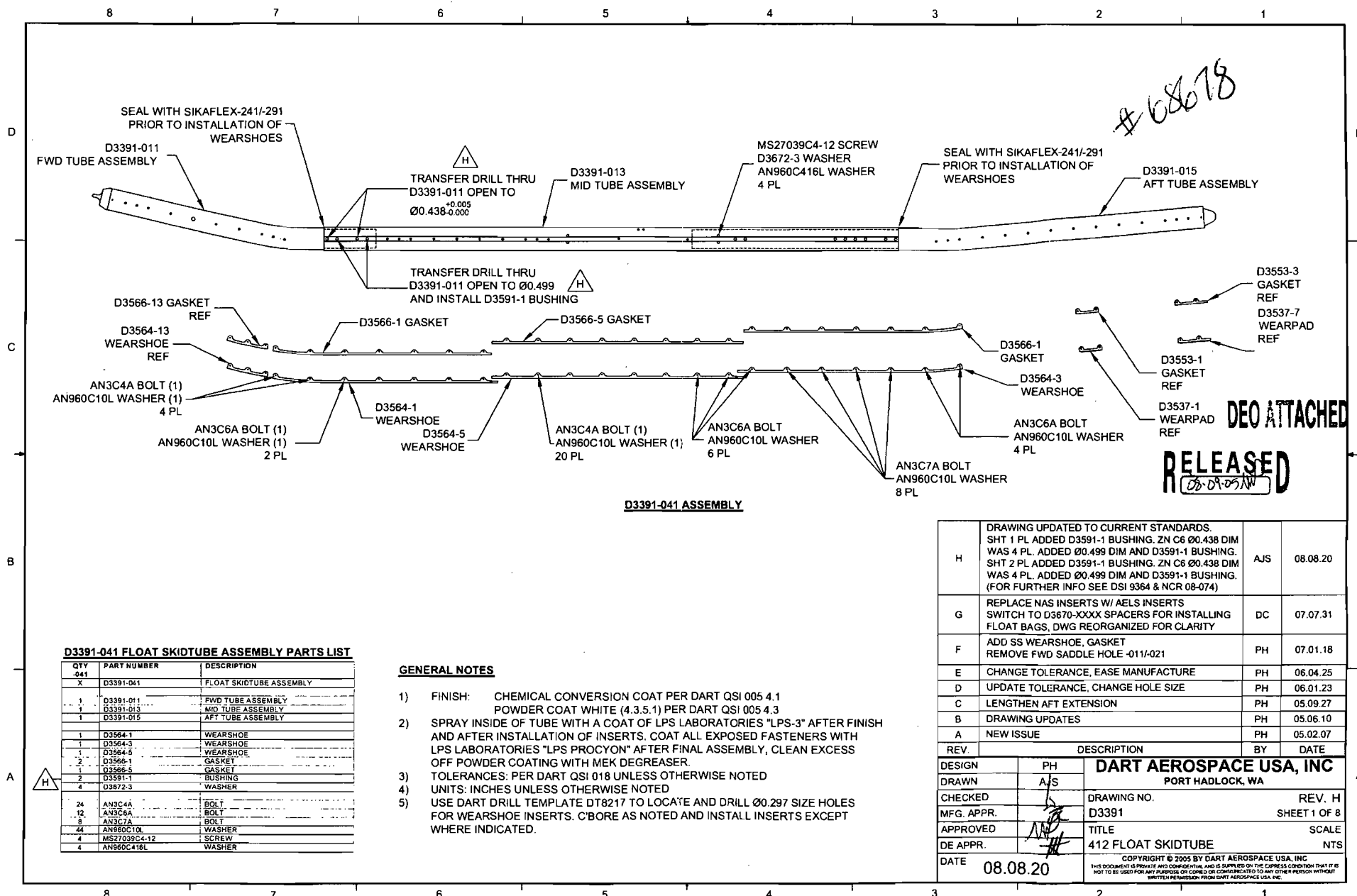
FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|---------------|------------------|--------|--------|----------------------|----------|
| 0.687 | +0.010/-0.000 | .690 | / | | DR-02 | |
| 3.590 | +0.025/-0.010 | 3.607 | / | | | |
| 3.300 | +0.040/-0.000 | 3.327 | / | | | |
| 1.429 | +0.040/-0.060 | 1.417 | / | | | |
| 4.250 | +/-0.010 | 4.250 | / | | | |
| 4.250 | +/-0.010 | 4.250 | / | | | |
| .187 | +0.005/-0.001 | .188 | ✓ | | JLMV6 | |
| .500 | +/-0.010 | .504 | ✓ | | JLMV6 | |
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| Measured by: [Signature] | Audited by: JL | Prototype Approval: | N/A |
| Date: 11.5.6 | Date: 11/05/10 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-------------------------------------|------------|-------------|
| A | 06.04.27 | New Issue P/O D3391-011/-021 | KJ/JLM | |
| B | 06.06.19 | Tolerances revised per D3391 Rev. E | KJ/JLM | |
| C | 07.03.21 | Dimensions removed per Dwg rev. F | KJ/JLM | |
| D | 07.11.23 | Dwg Rev. updated | KJ/EC/DD | |
| E | 09.12.14 | Dwg Rev updated | KJ | [Signature] |



| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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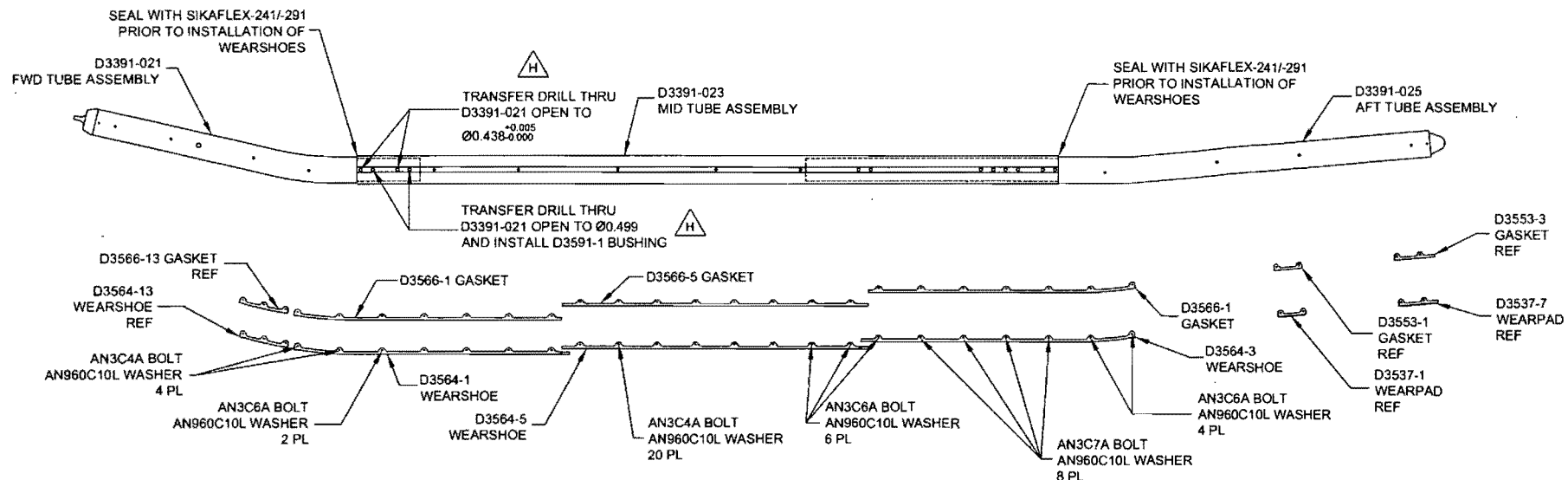
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

#68678



D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

| QTY | PART NUMBER | DESCRIPTION |
|-----|-------------|-------------------------|
| 1 | D3391-043 | FLOAT SKIDTUBE ASSEMBLY |
| 1 | D3391-021 | FWD TUBE ASSEMBLY |
| 1 | D3391-023 | MID TUBE ASSEMBLY |
| 1 | D3391-025 | AFT TUBE ASSEMBLY |
| 1 | D3564-1 | WEARSHOE |
| 1 | D3564-3 | WEARSHOE |
| 1 | D3564-5 | WEARSHOE |
| 2 | D3566-1 | GASKET |
| 1 | D3566-3 | GASKET |
| 2 | D3591-1 | BUSHING |
| 24 | AN3C4A | BOLT |
| 12 | AN3C6A | BOLT |
| 8 | AN3C7A | BOLT |
| 44 | AN960C10L | WASHER |

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

DEO ATTACHED
RELEASED
08-09-25

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|------------|--|-------------|--|--|--|
| DESIGN | | PH | | DART AEROSPACE USA, INC | |
| DRAWN | | AJS | | PORT HADLOCK, WA | |
| CHECKED | | [Signature] | | DRAWING NO. REV. H | |
| MFG. APPR. | | [Signature] | | D3391 SHEET 2 OF 8 | |
| APPROVED | | [Signature] | | TITLE SCALE | |
| DE APPR. | | [Signature] | | 412 FLOAT SKIDTUBE NTS | |
| DATE | | 08.08.20 | | <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

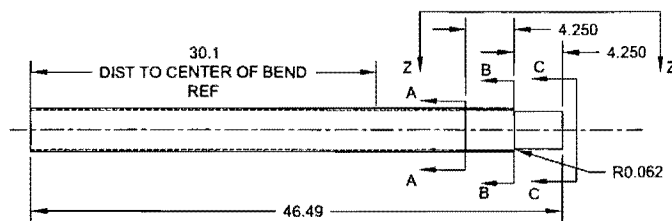
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|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

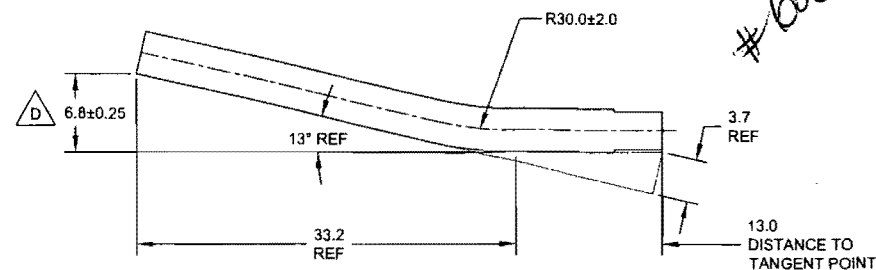
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| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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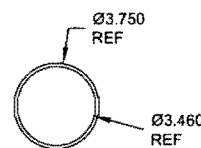
NOTE: Date & initial all entries



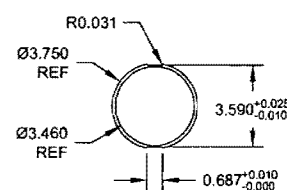
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(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



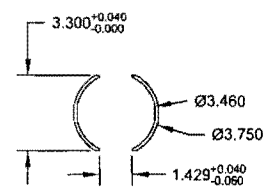
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



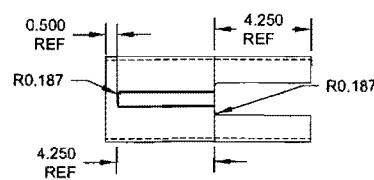
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X




SECTION C-C
SCALE 2X



VIEW Z-Z
SCALE 2X

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08-05-11

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| DESIGN | PH | DART AEROSPACE USA, INC | |
| DRAWN | AJS | PORT HADLOCK, WA | |
| CHECKED |  | DRAWING NO. | REV. H |
| MFG. APPR. |  | D3391 | SHEET 3 OF 8 |
| APPROVED |  | TITLE | SCALE |
| DE APPR. |  | 412 FLOAT SKIDTUBE | NTS |
| DATE | 08.08.20 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC | |
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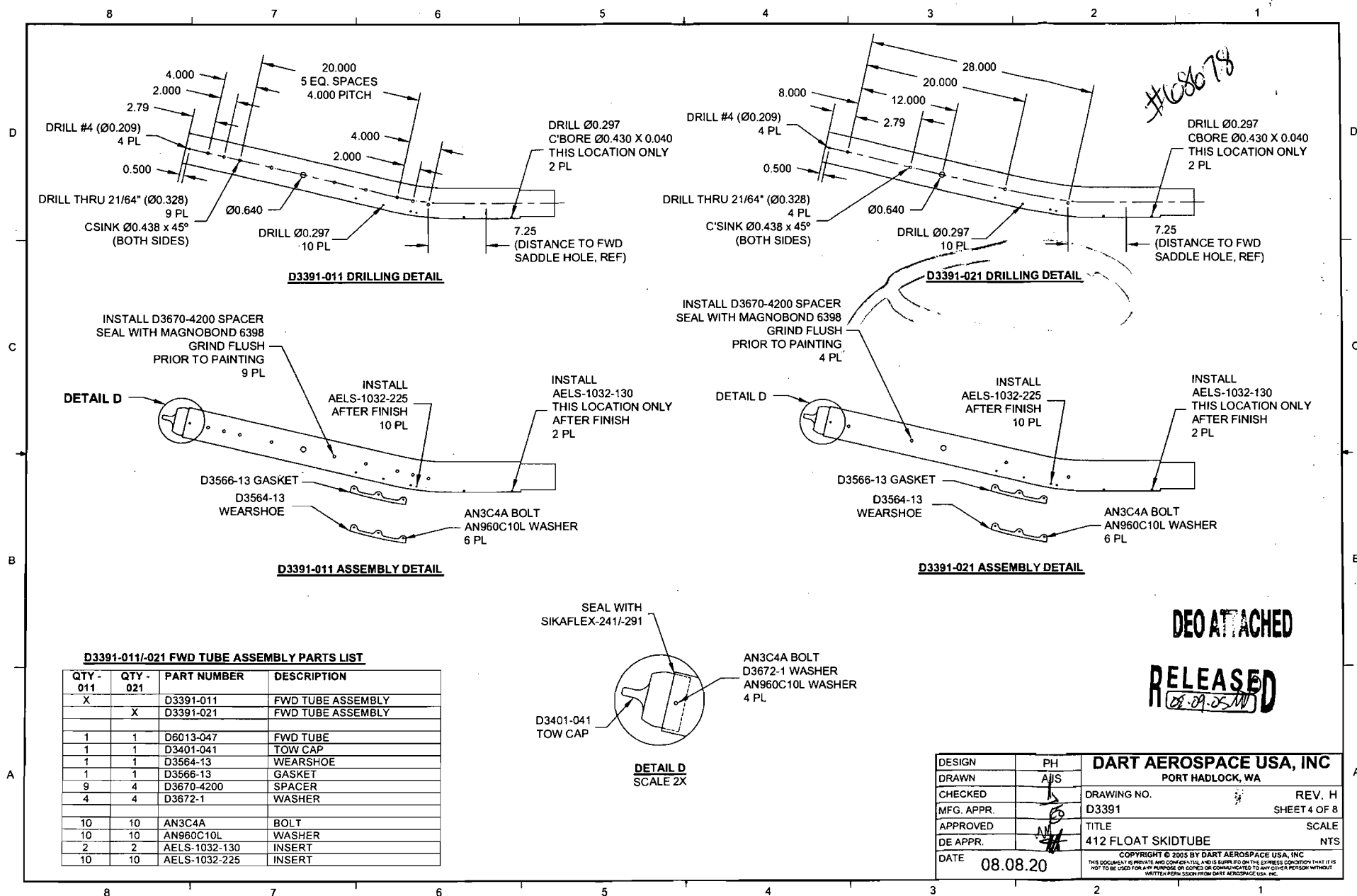
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries



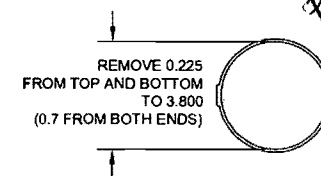
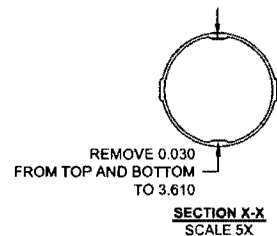
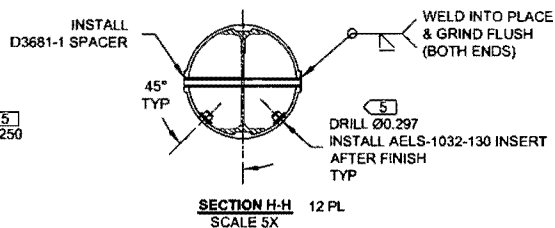
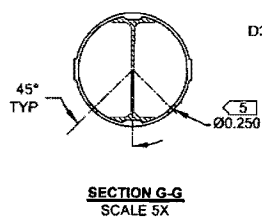
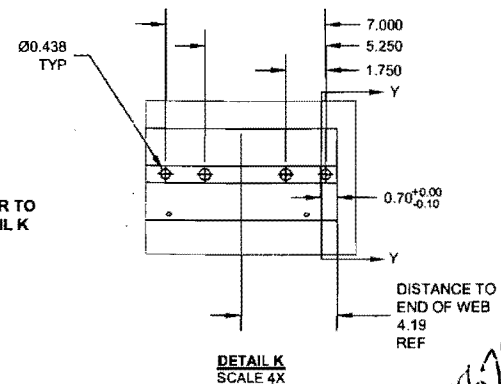
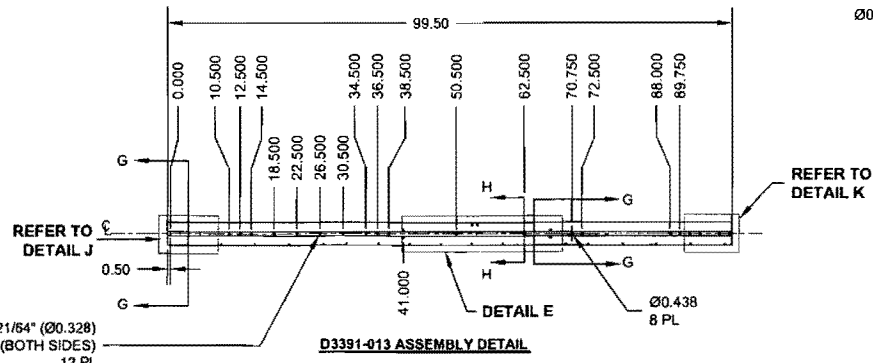
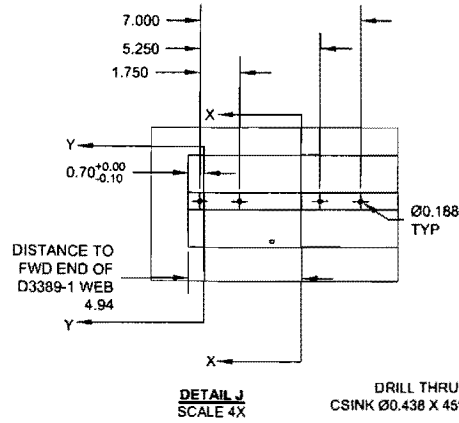
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

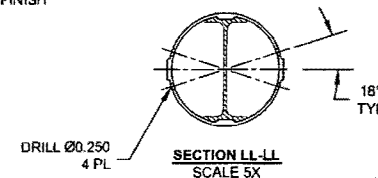
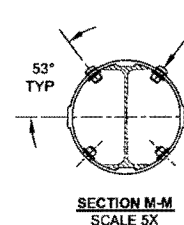
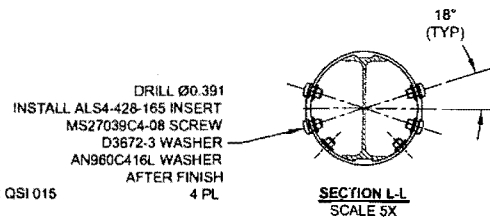
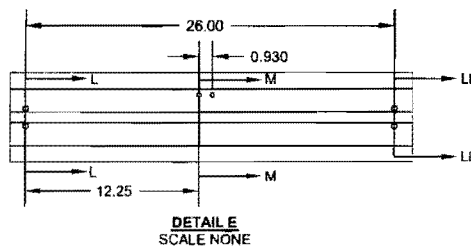


D3391-013 MID TUBE ASSEMBLY PARTS LIST

| QTY | PART NUMBER | DESCRIPTION |
|-----|---------------|-------------------|
| X | D3391-013 | MID TUBE ASSEMBLY |
| 1 | D2500-1-100 | EXTRUSION |
| 1 | D3389-1 | WEB |
| 4 | D3672-1 | WASHER |
| 4 | D3672-3 | WASHER |
| 12 | D3681-1 | SPACER |
| 24 | AELS-1032-130 | INSERT |
| 4 | ALS4-428-165 | INSERT |
| 4 | AN960C10L | WASHER |
| 4 | AN960C416L | WASHER |
| 4 | MS27039C1-09 | SCREW |
| 4 | MS27039C4-08 | SCREW |

D3391-013 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004



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| DESIGN | PH | DART AEROSPACE USA, INC | |
| DRAWN | AJS | PORT HADLOCK, WA | |
| CHECKED | | DRAWING NO. | REV. H |
| MFG. APPR. | | D3391 | SHEETS OF 8 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | 412 FLOAT SKIDTUBE | NTS |
| DATE | 08.08.20 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC | |
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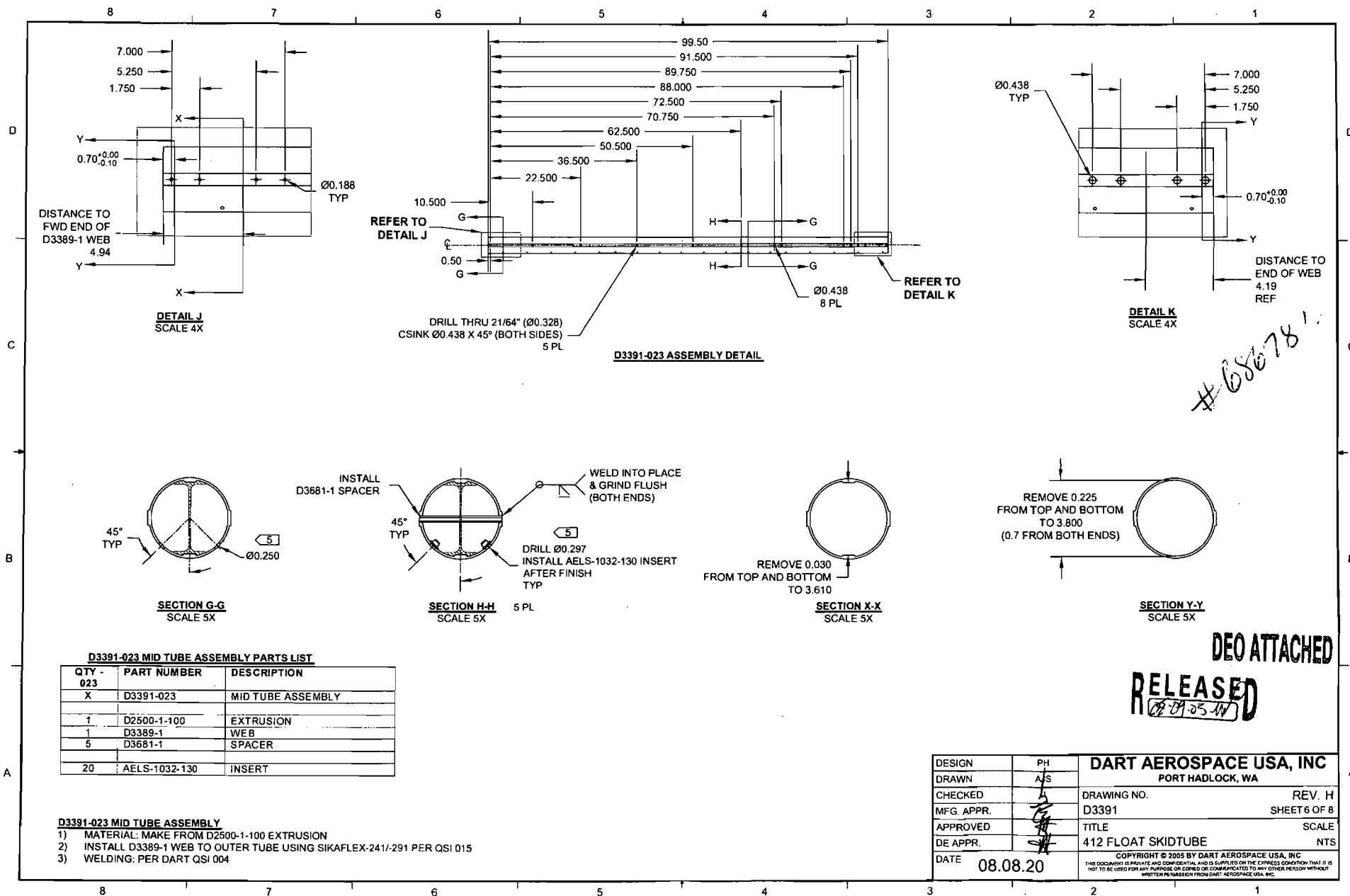
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries



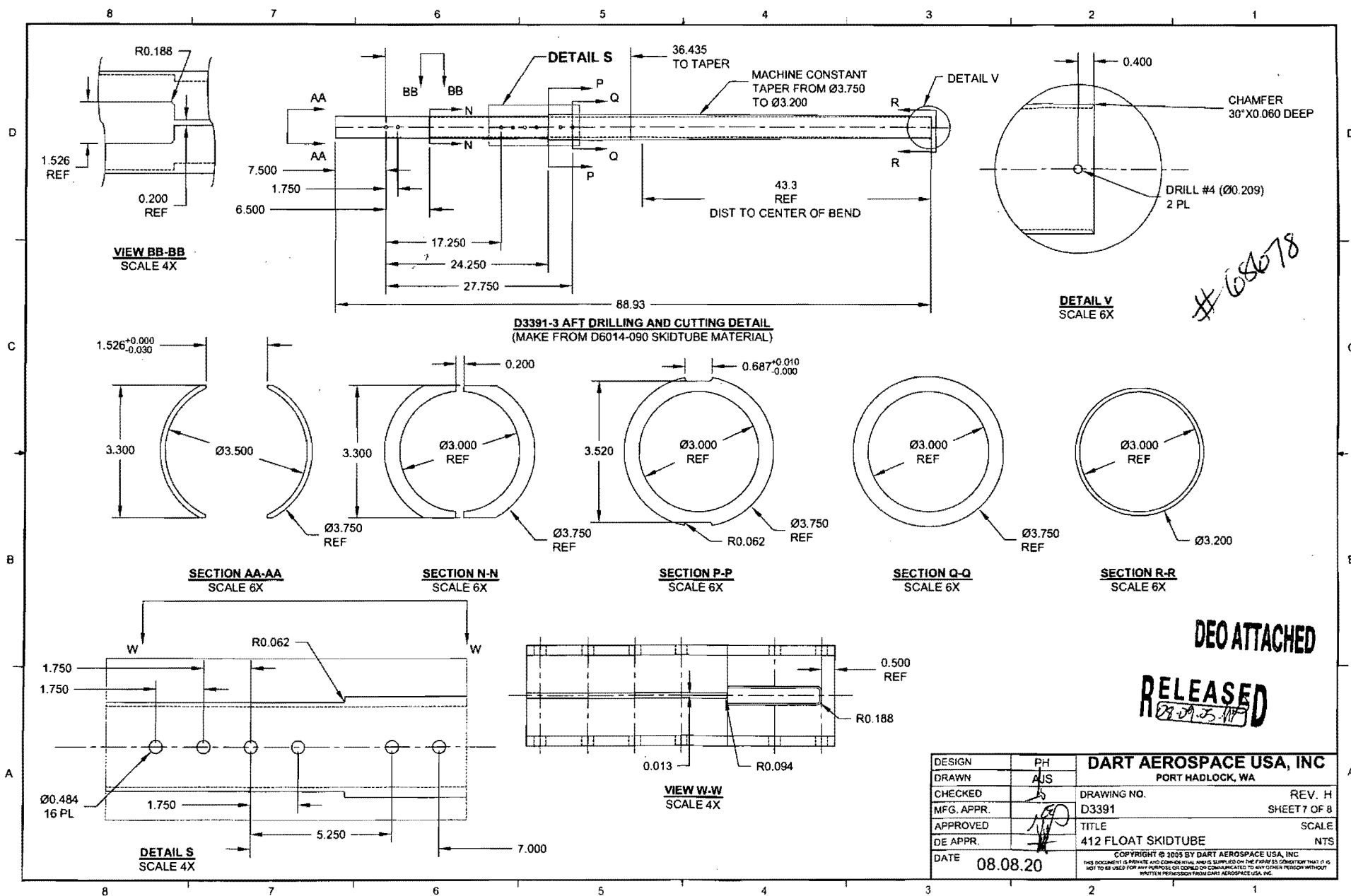
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries



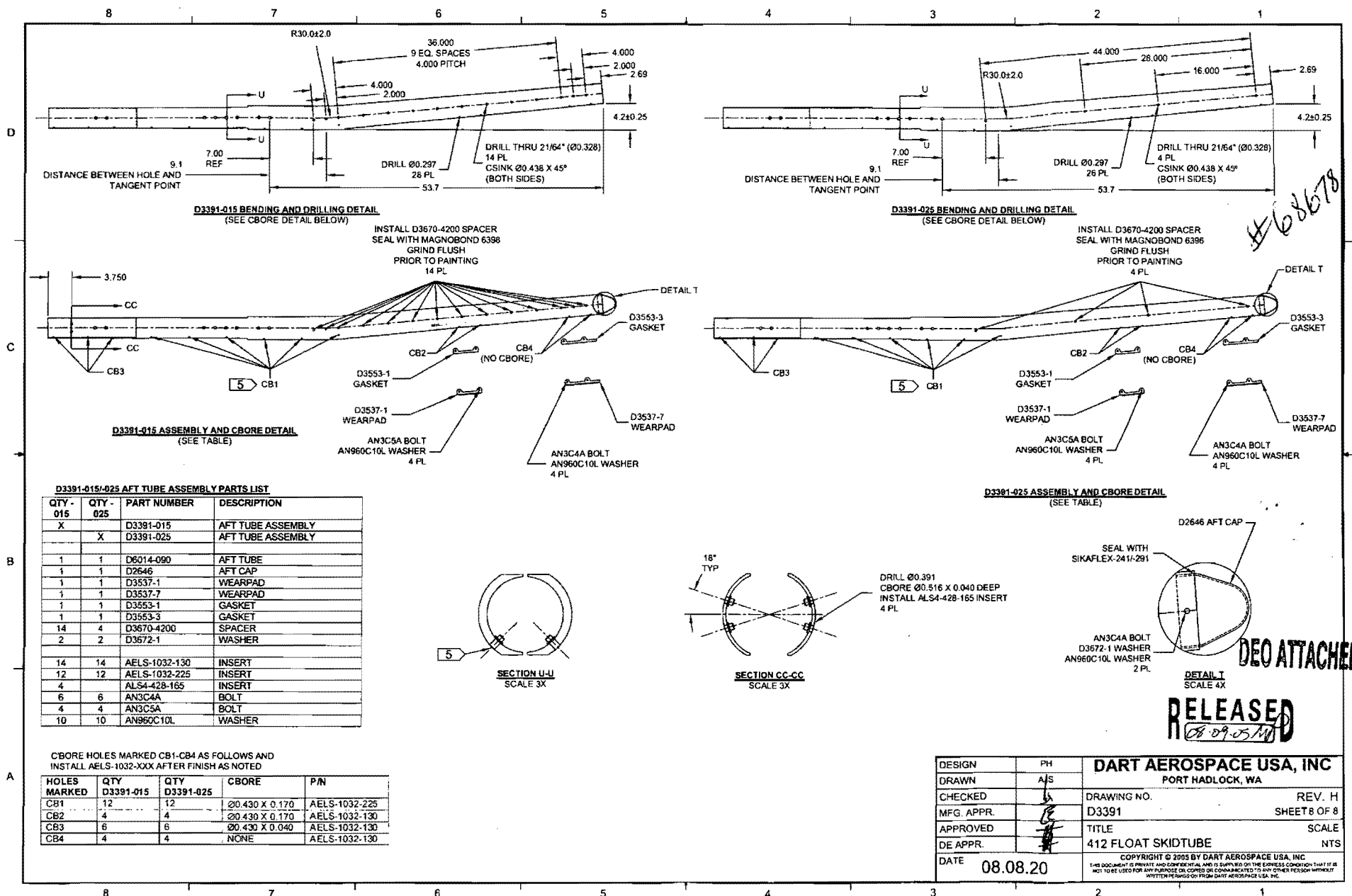
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries



| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

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| DRAWING NO. D3391 | TITLE 412 FLOAT SKIDTUBE | REV. H | DART AEROSPACE USA, INC ENGINEERING ORDER | | D.E.O. NO. D3391-H-1 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN <i>MP</i> | CHECKED <i>h</i> | MFG. APPR. <i>MA</i> | APPROVED <i>MP</i> | | DE APPR. <i>h</i> | | |
| DATE 09.09.23 | DATE 04.04.24 | DATE 09/09/25 | DATE 09/09/30 | | DATE 09/09/30 | | |

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

- 2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH~~
~~AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH~~
 LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
 OFF POWDER COATING WITH MEK DEGREASER.

RELEASED
 2010-02-02

MP

#68678

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries